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Chief, Supplemental Programs Division, OC 10 November 1955

Chief, Engineering Division, OC

Contract RD-91 - Marine Crystal Video Receiving System

1. Meetings were held at 1000 on 10 October 1955 and at 0900 on 11 October 1955 to re-evaluate the Marine Crystal Video program and to bring it into line with the latest requirements of your Division. Those persons in attendance on 10 October were:

25X1

Those attending the meeting on 11 October were:

25X1

2. In accordance with your desires, certain requirements of the contract specifications have been expanded, while certain others have been reduced. This has resulted in a slight re-orientation of the work progress with the contractor. These points are covered in the following paragraphs and have been presented to the contractor in accordance with your wishes.

3. It has been stated that the hydraulic mast is no longer needed and may be deleted as a requirement. As this was not included in the basic contract in the first place, there will be no change in the obligated sum.

4. It has been stated that quadrant sensing only is the order of accuracy required of the system. This has been interpreted as meaning accuracies to within plus or minus 45°. It is expected, however, that the ultimate system accuracy, when installed and calibrated, will be about plus or minus 15°.

5. The physical size of the antenna system is of a major concern; and because of the relatively long antennas required for the bands below 400 megacycles, it has been suggested that port and starboard (bilateral) sensing only be incorporated within the limits of from 50 to 400 megacycles. This would suggest an

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antenna housing configuration which has a fairly high length to width ratio, but which would not reduce the overall height. It has been stressed that bilateral sensing will be resorted to only on the condition that suitable antennas for quadrant sensing cannot be designed within the stipulated contract period. However, bilateral sensing would not result in a reduction of the number of Video channels within the console unit as quadrant sensing ability will be retained, but not used.

6. In order to make available for data reduction the maximum capability of the system, additional output connections are required, such that each channel within a band is terminated in an output jack, in addition to the output derived from a channel combining amplifier. This is a total of 5 outputs from each band, for a total of 45 jacks. In addition to these, there will be 3 others. The first will be a camera actuate circuit which will be driven by a band combining amplifier; the second, a headphone output connection; and the third, a wide-band output for pulse presentation to analyzing equipment. The headphone and wide-band output will be switched to any one of the nine bands by means of a front panel control located on the console unit.

7. As the original concept of the equipment only called for a combined output from each band, the added requirements of paragraph 6 above will require the use of additional amplifiers, and a more elaborate electronic system. This will probably result in a delivery delay and an increase of costs. The contractor has been requested to submit a proposal based on these additional requirements.

[redacted] 25X1

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(10 November 1955)

cc: R&D Subject File ✓
Reading
Chrono
Dev-ep